

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of managing availability of resources in a set of resources in support of the allocation of resources in said set to carry out respective tasks which together fulfill one or more work requirements, each resource in the set being provided with a resource interface and at least one of said resources being an equipment resource, the method comprising:

storing constraint definition data defining constraints relating to availability of said resources for allocation to respective tasks;

storing an initial data representation of resource availability;

receiving at data processing means, from at least one of said resource interfaces, availability data concerning availability of a resource;

generating a proposed data representation of resource availability, based on the initial data representation together with said availability data;

determining whether said proposed data representation is compatible with said constraint definition data;

in the case that said proposed data representation is compatible with said constraint definition data, substituting said proposed data representation for said initial data representation to generate a new initial data representation; and

in the case that said proposed data representation is not compatible with said constraint definition data, transmitting a rejection signal to said at least one other of said

resource interfaces, said at least one other resource interface responding to receipt of said rejection signal by outputting availability data to said data processing means.

2. (Currently Amended) A method according to Claim 1 which further comprises:

receiving at the data processing means, from at least one of said resource interfaces, further availability data concerning availability of a resource;

generating a further proposed data representation of resource availability, based on the initial data representation together with said further availability data;

determining whether said further proposed data representation is compatible with the constraint definition data;

in the case that said further proposed data representation is compatible with said constraint definition data, substituting said further proposed data representation for said initial data representation to generate a new initial data representation; and

in the case that said proposed data representation is not compatible with said constraint definition data, generating and transmitting a rejection ~~reflection~~-signal to said at least one of said resource interfaces.

3. (Currently Amended) A method according to claim 1, wherein, in the case that a proposed data representation is not compatible with said constraint definition data, the step of generating and transmitting a rejection signal to said at least one of said resource interfaces comprises generating and transmitting a rejection signal to a plurality ~~said at least one of~~ said resource interfaces.

4. (Currently Amended) A method according to claim 1 wherein said at least one other resource interface is provided with at least one resource profile, the resource profile comprising data in respect of a resource, the method further comprising the steps of:

responsive to receiving at a resource interface a rejection signal ~~signal~~; reviewing a resource profile provided with respect to that resource interface; and  
outputting availability data to the data processing means dependent on the outcome of the review.

5. (Original) A method according to Claim 4 wherein said resource profile comprises at least first and second data types in respect of a resource, the first data type comprising at least one resource attribute and the second data type comprising availability commitments of the resource.

6. (Previously Presented) A method according to Claim 4 wherein the resource profile further comprises a priority indicator for at least one availability commitment of the resource, and wherein said step of reviewing a resource profile comprises reviewing the priority indicator.

7. (Currently Amended) A method according to Claim 4 wherein said rejection signal comprises an identifier for a selected resource, or for a selected set of resources, and wherein ~~said steps of~~ reviewing a resource profile and outputting availability data to the data processing means dependent on the outcome of the review comprise reviewing the resource profile for the presence of said identifier and outputting availability data only if said identifier is present.

8. (Previously Presented) A method according to Claim 1 which further comprises, subsequent to generating and transmitting said rejection signal, triggering termination of tasks being carried out in respect of a common work requirement to which the rejection signal is related.

9. (Currently Amended) A method according to Claim 8 wherein ~~said step of~~ triggering termination is carried out after a predetermined time has elapsed during which no availability data has been received from a resource interface.

10. (Previously Presented) A method according to Claim 1 wherein said constraint definition data comprises at least two sets of constraint definition data, and the method further comprises:

receiving via a user interface a proposed modification to a first set of constraint definition data;

reviewing the proposed modification against the second set of constraint definition data;

in the case that the proposed modification is compatible with the second set, modifying the first set accordingly; and

in the case that the proposed modification is not compatible with the second set, transmitting a rejection signal to the user interface.

11. (Currently Amended) Apparatus for use in managing availability of resources in a set of resources in support of the allocation of resources in said set to

carry out ~~respective~~ tasks which together fulfill one or more work requirements, the apparatus comprising:

an input for receiving communication signals from at least one resource interface;  
a constraint definition data store for storing data defining constraints relating to availability of said resources for allocation to ~~respective~~ tasks;  
a resource availability data ~~representation~~ store for storing an initial data representation of resource availability and a proposed data representation of resource availability; and

data processing means,

the apparatus being arranged, in use, to maintain an initial data representation in the resource availability data ~~representation~~ store, to receive an input from at least one a resource interface comprising availability data concerning availability of said a resource, to generate a proposed data representation of resource availability, to review the proposed data representation of resource availability against the constraints, and either to substitute the proposed data representation of resource availability for the initial data representation or to output a rejection message to at least one other resource interface, dependent on the outcome of said review, said at least one other resource interface, on receipt of said rejection message, being arranged to transmit to the data processing means a signal containing availability data for the respective resource.

12. (Original) Apparatus according to Claim 11 wherein said constraint definition data store comprises means for storing at least two sets of constraint definition data,

each set having at least one respective input, said apparatus having means for reviewing constraint data received at one input against constraint data received at another input, and means for either outputting a rejection message or for loading the received constraint data, in dependence on the outcome of the review.

13. (Previously Presented) Apparatus according to Claim 11 wherein each resource interface is provided with a profile store for storing at least one resource profile and, on receipt of a rejection message, each resource interface is arranged to review any resource profiles stored in its profile store and, in the event that a resource profile is identified as relevant to the rejection message, to transmit to the data processing means a signal containing availability data for the respective resource.

14. (Original) Apparatus according to Claim 13 wherein a resource profile comprises at least one data element and a rejection message comprises at least one data element, review of a resource profile comprising matching the data element from a rejection message against the data element or elements in a resource profile.

15. (Currently Amended) Resource allocation apparatus, for use in the allocation of resources to carry out one or more ~~respective~~ tasks, the apparatus comprising availability management means for managing availability of a set of resources and resource allocation means, ~~means~~ wherein the availability management means comprise:

i) a signal input for receiving signals from a ~~plurality of respective resource interface, interfaces, one or more of said~~ signals comprising availability data with respect to said ~~at least one identified resource of said set~~;

ii) a constraint definition data store for storing data defining constraints relating to availability of said resources for allocation to ~~respective tasks~~;

iii) a resource availability data ~~representation~~-store for storing an initial data representation of resource availability for said set and a proposed data representation of resource availability for said set; and

iv) data processing means arranged in use to maintain an initial data representation in the resource availability data store, ~~representation store~~-to receive from said signal, ~~signal~~-input data concerning availability of a resource, ~~resource~~-to generate a proposed data representation of resource availability, to review the proposed data representation of resource availability against the constraints, and in dependence upon the outcome of said review, either to substitute the proposed data representation of resource availability for the initial data representation or to output, ~~output~~-by means of a signal output, a rejection message to at least one other resource interface ~~in dependence upon the outcome of said review~~ and wherein said at least one other ~~said~~ resource interface is responsive to receipt of said rejection message to generate a signal comprising availability data with respect to a respective resource; and

wherein the resource allocation means are arranged, in use, to allocate resources of said set to one or more respective tasks in dependence upon a representation of resource availability for said set maintained by the resource management means.

16. (Previously Presented) Resource allocation apparatus according to claim 15, wherein the signal input is also for receiving a management signal input from at

least one management interface, one or more of said management signals comprising constraint data with respect to at least one resource, and the apparatus further comprises means for using constraint data received from a management interface to enter or change data in the constraint definition data store, and means to categorise data in the constraint definition data store according to source type, the apparatus being further arranged, on review of the content of the constraint definition data store, to resolve any conflict in constraint data relevant to a task acceptance signal according to its source type.

17. (Previously Presented) Resource allocation apparatus according to claim 16 wherein data in the constraint definition data store is categorised by location in the store.

18. (Previously Presented) Resource allocation apparatus according to Claim 16 wherein the apparatus is further arranged to store at least a third category of data in the constraint definition data store, the source of data in the third category being requirements of an operational support system for use in performing allocated task(s).

19. (Currently Amended) Resource ~~A resource~~-allocation apparatus according to claim 15, wherein at least one of said resource interfaces is provided with a resource specific data store, and is triggerable by receipt of said rejection message or said notification signal to review its resource specific data store and to transmit resource availability data to the signal input of the resource management means dependent on the outcome of the review, such that allocation of resources can be amended according



to interaction between a resource interface, the resource management means and the resource allocation means, within limits determined by the constraint definition data.

20. (Currently Amended) A method according to claim 1 wherein said constraint definition data define constraints ~~constraints~~, relating to the allocation of tasks to respective resources.

21. (Previously Presented) Apparatus according to claim 11 wherein said constraint definition data define constraints relating to the allocation of tasks to respective resources.

22. (Previously Presented) Resource allocation apparatus, according to claim 15, wherein one or more signals received at the signal input comprises a task acceptance signal from a resource interface and wherein the apparatus is arranged in use to respond to receipt of a task acceptance signal by reviewing the content of the constraint definition data store and, depending on the result of the review to output to at least one resource interface a notification signal identifying at least one task for which resource is required, or to allocate resource to a task.

23. (New) A method according to Claim 5 wherein the resource profile further comprises a priority indicator for at least one availability commitment of the resource, and wherein said step of reviewing a resource profile comprises reviewing the priority indicator.